

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>EL, 053-PCT</b>	<b>FOR FURTHER ACTION</b> <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/GB2004/001079</b>	International filing date (day/month/year) <b>12/03/2004</b>	(Earliest) Priority Date (day/month/year) <b>15/03/2003</b>
Applicant  <b>ELAM-T LIMITED</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

**4. With regard to the title,**

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**ELECTROLUMINESCENT BORON COMPLEXES**

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regards to the drawings,**

a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☒ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/001079

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01L51/30 C09K11/06 H05B33/14 C07F5/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01L C09K H05B C07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	CHENG, CHUNG-CHIH ET AL: "Syntheses and remarkable photophysical properties of 5-(2-pyridyl) pyrazolate boron complexes; photoinduced electron transfer" CHEMICAL COMMUNICATIONS, no. 20, 3 October 2003 (2003-10-03), pages 2628-2629. XP002286359 ISSN: 1359-7345 compound 2d	1-4,6,7, 10, 12-31,35
A	US 6 368 731 B1 (HEUER HELMUT-WERNER ET AL) 9 April 2002 (2002-04-09) cited in the application the whole document -/-	1-36

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*S\* document member of the same patent family

Date of the actual completion of the international search

29 June 2004

Date of mailing of the international search report

12/07/2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/001079

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	LIU Y ET AL: "Highly efficient white organic electroluminescence from a double-layer device based on a boron hydroxyphenylpyridine complex" ANGEWANDTE CHEMIE, INTERNATIONAL EDITION, vol. 41, no. 1, 4 January 2002 (2002-01-04), pages 182-184, XP002286360 ISSN: 1433-7851 the whole document	1-36
A	US 6 287 713 B1 (HEUER HELMUT WERNER ET AL) 11 September 2001 (2001-09-11) cited in the application the whole document	1-36
A	LI ET AL: "A mixed pyridine-phenol boron complex as an organic electroluminescent material" CHEMICAL COMMUNICATIONS, no. 16, 2000, pages 1551-1552, XP002231558 ISSN: 1359-7345 the whole document	1-36
A	WU Q ET AL: "Synthesis, structure and electroluminescence of BR2q (R = Et, Ph, 2-naphthyl and q = 8-hydroxyquinolato)" CHEMISTRY OF MATERIALS, vol. 12, no. 1, January 2000 (2000-01), pages 79-83, XP000919563 ISSN: 0897-4756 the whole document	1-36

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2004/001079

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6368731	B1	17-01-2002	DE	19829949 A1	05-01-2000
			CA	2276808 A1	04-01-2000
			EP	1074602 A1	07-02-2001
			JP	2000138096 A	16-05-2000
			KR	2000011463 A	25-02-2000
			US	2002006528 A1	17-01-2002
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			CA	2276806 A1	04-01-2000
			EP	0969531 A2	05-01-2000
			JP	2000150163 A	30-05-2000
			KR	2000011462 A	25-02-2000
			TW	419929 B	21-01-2001